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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,653	01/25/2002	Martin Franz	YOR9-2001-0738 US1 (8728-	9856

7590 06/02/2005	**EXAMINER**
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ART UNIT	PAPER NUMBER
2164	

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DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-33* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 13-15 and 23-33* is/are rejected.

7)☒ Claim(s) *4-12 and 16-22* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Remarks

1.   In response to communications filed on 17-March-2005, claims 1, 4-7, 13, 16-18, and 26-

28, are amended per applicant's request. Claims 1-33 are presently pending in the application.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.   Claims 1-2, 13-14, 23-24, 26, 28, and 30-33 are rejected under 35 U.S.C. 102(b) as being

anticipated by <u>Spencer</u> (U.S. patent No. 5,915,249).

As to claim 1, <u>Spencer</u> teaches a method for compressing an index file in an information

retrieval system that retrieves information from a plurality of documents, each of the plurality of

documents having features occurring therein, the method comprising the step of:

representing occurrence frequencies of the features in the plurality of documents in a

compressed format in the index file, wherein the compressed format comprises a plurality of bin

identifiers for a plurality of bins over which the occurrence frequencies are categorized (see

column 9, lines 25-51, where "bins" are read on "tuples", and each tuple is categorized by its

term frequency according to the amount of times the term appears in the document).

As to claim 2, <u>Spencer</u> teaches wherein the features are textual (see column 9, lines 25-51).

As to claim 13, <u>Spencer</u> teaches an apparatus for compressing an index file in an information retrieval system that retrieves information from a plurality of documents, each of the plurality of documents having features occurring therein, the apparatus comprising:

a compression device for representing occurrence frequencies of the features in the plurality of documents in a compressed format in the index file, wherein the compressed format comprises a plurality of bin identifiers for a plurality of bins over which the occurrence frequencies are categorized (see column 9, lines 25-51, where "bins" are read on "tuples", and each tuple is categorized by its term frequency according to the amount of times the term appears in the document).

As to claim 14, <u>Spencer</u> teaches wherein the features are textual (see column 9, lines 25-51).

As to claim 23, <u>Spencer</u> teaches method for compressing an index file in an information retrieval system that retrieves information from a plurality of documents, each of the plurality of documents having features occurring therein, each of the features having parameters corresponding thereto, the method comprising the step of:

mapping parameter values corresponding to the parameters of the features into a plurality

of bins (see column 9, lines 25-51, where "parameter values" is read on document identifier

which is mapped to the document); and

storing bin identifiers in the index file, each of the bin identifiers identifying a bin to

which is assigned at least one individual parameter value corresponding to at least one individual

parameter (see figure 3a).

As to claim 24, <u>Spencer</u> teaches wherein the features are textual (see column 9, lines 25-

51).

As to claim 26, <u>Spencer</u> teaches further comprising the step of establishing each of

assigning a range of parameter values to each one of the bins (see column 9, lines 25-51, where

each interval is one number that includes one document).

As to claim 28, <u>Spencer</u> teaches wherein assigning comprises assigning a different range

of parameter values, such that the different range represented by each of the plurality of bins

contains a substantially same number of the parameter values (see column 9, lines 25-51).

As to claim 30, <u>Spencer</u> teaches wherein said mapping step respectively maps only a

single parameter and a corresponding parameter value into each of the plurality of bins (see

column 9, lines 25-51), the method further comprises the step of scoring at least one of the

plurality of documents with respect to a query, and said scoring step comprises the step of

computing a parameter value for a given one of the plurality of bins based on the single

parameter and corresponding parameter value mapped thereto (see column 12, line 50 through

column 13 line 2).

As to claim 31, Spencer teaches further comprising the step of establishing bin

boundaries for the plurality of bins based on a methodology employed to score the plurality of

documents with respect to queries, the bin boundaries defining intervals within which the

parameter values fall (see column 9, lines 25-51).

As to claim 32, Spencer teaches further comprising the steps of:

receiving a query having at least one parameter (see column 12, lines 6-24); and

computing a relevance score for at least one of the plurality of documents with respect to

the query, based on the bin identifiers (see column 12, line 50 through column 13, line 2).

As to claim 33, Spencer teaches wherein the method is implemented by a program

storage device readable by machine, tangibly embodying a program of instructions executable by

the machine to perform said method steps (see abstract).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 3, 15, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Spencer (U.S. patent No. 5,915,249) in view of Lee (U.S. patent No. 6,704,725 B1).

As to claims 3 and 15, Spencer does not teach wherein the features are non-texual.

Lee teaches wherein the features are non-texual (see column 3, lines 1-32).

It would have been obvious to a person having ordinary skill in the art at the time the

invention was made to have modified Spencer by the teachings of Lee because wherein the

features are non-texual would allow the user to search multimedia data (see Lee, abstract).

As to claim 25, Spencer does not teach wherein the features are non-texual.

Lee teaches wherein the features are non-texual (see column 3, lines 1-32).

It would have been obvious to a person having ordinary skill in the art at the time the

invention was made to have modified Spencer by the teachings of Lee because wherein the

features are non-texual would allow the user to search multimedia data (see Lee, abstract).

6.   Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer (U.S.

patent No. 5,915,249)

As to claim 27, Spencer does not teach wherein the step of mapping results in one of the

bins being empty.

It would have been obvious to a person having ordinary skill in the art at the time the

invention was made to have modified Spencer to include wherein the step of mapping results in

one of the bins being empty because this would allow documents to be added to the search at a

later time.

7.   Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over <u>Spencer</u> (U.S.

patent No. 5,915,249) in view of <u>Scott et al.</u> (U.S. patent application publication No.

2002/0049760 A1).

As to claim 29, <u>Spencer</u> teaches the method further comprises the step of scoring at least

one of the plurality of documents with respect to a query, and said scoring step comprises the

step of computing a parameter value for a given one of the plurality of bins as a weighted

average of the parameter values contained within the given one of the plurality of bins (see

column 12, line 50 through column 13 line 2).

<u>Spencer</u> does not teach wherein said mapping step respectively maps more than a single

parameter and a corresponding parameter value into each of the plurality of bins.

<u>Scott et al.</u> teaches wherein said mapping step respectively maps more than a single

parameter and a corresponding parameter value into each of the plurality of bins (see paragraph

0027).

It would have been obvious to a person having ordinary skill in the art at the time the

invention was made to have modified <u>Spencer</u> by the teachings of <u>Scott et al.</u> because wherein

said mapping step respectively maps more than a single parameter and a corresponding

parameter value into each of the plurality of bins would allow a user to retrieve a desired file

from a network and have the best sources automatically chosen based on the chosen ID (see

paragraph 0027).

Allowable Subject Matter

8.   Claims 4-12, and 16-22 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims.

Response to Arguments

9.   Applicant's arguments filed 17-March-2005 have been fully considered but they are not

persuasive.

In response to the applicant's arguments that "Spencer does not teach *representing*

occurrence frequencies in a compressed format which includes a plurality of bin identifiers for a

plurality of bins of which the occurrence frequencies are categorized", the arguments have been

fully considered but are not deemed persuasive. Spencer teaches having bins (tuples) each of

which is categorized by the document identifier and term frequency. He also teaches using

differential compression to reduce memory requirements (see column 9, 25-51).

In response to the applicant's arguments that "Spencer does not teach an index

compression where *parameters are mapped into bins* and *bin identifiers corresponding to bins*

are stored in the index file", the arguments have been fully considered but are not deemed

persuasive. Spenser teaches mapping terms or "parameters" into tuples or "bins". He then

teaches identifying these tuples with document term frequency pairs in the index file (See

column 9, lines 25-51).

10.   In response to the applicant's arguments that "Scott does not disclose *computing a*

parameter value for one of the bins as a weighted average of parameter values", the arguments

have been fully considered but are not deemed persuasive. Both the present and prior office

actions rely on the primary reference Spencer and not Scott et al. for this limitation. One cannot

show nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re*

Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

11.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

12.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jacob F. Betit whose telephone number is (571) 272-4075. The

examiner can normally be reached on Monday through Friday 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dov Popovici can be reached on (571) 272-4083. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jfb
19 May 2005

SAM RIMELL
PRIMARY EXAMINER